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| Bilal Qandeel |  |
| **+1 (438) 921 – 5565 |** [**bilal.qandeel@gmail.com**](mailto:bilal.qandeel@gmail.comQ) **| ON M6H 4E8** |
| APIS | Automation | BAS | BMS | CCTV | DCS | Easergy | Management Systems | FDIR | FIDIC | HVAC Control | IEAS | iFLS | Industrial Cyber Security | Intercom | ISA99 | KNX | LEED | Low Current Engineering | LVVR | PA | PACiS | PLC | SAS | SCADA | Smart Grid | StruxureWare | Substation Automation |

# Profile

* A Canadian control engineering consultant with 15+ years of experience working in different fields of control and automation engineering in Jordan, Saudi Arabia, and Canada. Currently working in engineering consultancy for major clients and leading stakeholders in the transit industry in Canada and North America.
* Graduate Diploma (GrDip) degree in computer science from Concordia University, 2019, Montreal, QC and Bachelor’s (B.Sc.) degree in electrical engineering from the University of Jordan, 2007.
* Specialized in testing and commissioning SCADA, Distributed Control Systems (DCS), Substation Automation Systems (SAS) using IEC 61850 protocol, and Programmable Logic Controllers (PLC) automation solutions.
* Supervised and/or firsthand designed, tested and commissioned a range of low current / low voltage (LC/LV) systems of different protocols, products, and vendors:
  + Experienced in building automation system (BAS) especially in lighting control (KNX/EIB and DALI), fire alarm, access control, intrusion alarm, multichannel audio systems and hotel guest management systems.
  + Integrated Building Management System (BMS) to cross-protocol, and cross-media interoperability.
  + Operated products of the OEMs: Schneider-Electric, ABB, Inim and Theben.
* Performed regulatory telecom activities with Jordan’s governmental telecom regulator body (the TRC).

# Professional Experience

* IKOS Consulting Canada Inc.
  + Software Requirements Reviewer with Aegis Engineering, UK Dec 2023 – May 2024
    - Systems and software requirements compliance to EN 50126-5 Railway applications; the specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS).
  + SCADA and Integration Consultant with Metrolinx, ON Jul 2023 – Nov 2023
    - SCADA testing and commissioning activities.
    - Quality control of the system’s deliveries.
    - Third-party low current system integration.
    - Root-cause analysis of snags and correction recommendations.
  + Systems Engineering Consultant with ISC Applied Systems, QC Feb 2023 – Jun 2023
    - Systems engineering consultancy for Auto Passenger Information Systems (APIS).
    - Locomotive communication system, Public Addressing systems (PA), CCTV, LVVR, and interior electronic advertisement systems (IEAS).
* NouvLR
  + Testing and Commissioning Coordinator Mar 2020 – Jan 2023
    - Maintained GTT SCADA system’s requirements to the project’s standards.
    - Evaluated the validity of the suppliers’ offers and recommended the most favourable.
    - Validated the testing and commissioning procedures.
    - Assisted in troubleshooting VLAN communication for DNP3 SCADA protocol.
    - Assisted in enforcing the cyber security policies and procedures.
    - Developed a couple of productivity scripts.
* SSENSE
  + Software Developer Sep 2019 – Dec 2019
    - Backend development over Python and Node.js using automated CI/CD environment employing GitHub, Docker Hub, Jinkins, K8S and tracked over Confluence and Jira.
* Schneider Electric
  + DCS Specialist, Canada Nov 2016 – Mar 2018
    - Interfaced a MySQL database to an ICMP packet manager using Python scripting.
    - Performed IEC61850 SCL text processing using Python.
    - Worked with SE’s proprietary PACiS, EcoSUI, PowerSCADA, Easergy, and StruxureWare.
    - Aggregated data from legacy communication protocols: DNP3, Modbus, and IEC 60870-5 into IEC 61650 using specialized IED gateways.
    - Integrated IEC61850 protection relay IEDs: SE, SEL, Vizimax, Cooper and ABB.
    - Visualized data using standard and customized local/remote levels over HMIs.
    - Gathered OT cybersecurity requirements to achieve NERC-CIP compliance.
    - Commissioned projects across Canada and in the USA too.
  + Technical Automation Engineer, Saudi Arabia Mar 2014 – Nov 2016
    - Interfaced IEC 61850 IEDs: SEL and ABB to SE PACiS and uplinked it to SCADA.
    - Implemented applications like: Energy Management Systems (EMS), iFLS (Interactive Fast Load Shedding Systems), and FDIR (Fault Detection, Isolation and Recovery System).
    - Interfaced Continuum and Modicon PLC controllers to HMI.
    - Working on a palette of automation protocols; T101, T104 and IEC 61850.
    - Implemented OT cybersecurity activities to achieve compliance with NERC-CIP and ISA99.
  + Senior KNX/EIB Engineer, Saudi Arabia Jun 2012 – Mar 2014
    - Post-designed, tested, and commissioned KNX automation protocol
    - Worked on DALI light control systems.
    - Rendered AutoCAD schematics for SLD diagrams and shop drawings.
    - Worked on low current integration and HVAC control.

*~:: Earlier work experiences can be found at my LinkedIn account. Please follow the given QR above. ::~*

# Education

* **Concordia University**
  + Graduate Diploma in Computer Science Montreal, QC, Sep 2018 – Aug 2019
* **The University of Jordan**
  + B.Sc. in Electrical Engineering (Equivalated by Canadian WES) Jun 2003 – Aug 2007

# Memberships & Certifications

* US Green Building Council member and certified LEED Green Associate,***Feb 2015 – Feb 2017***
* Member of Saudi Engineers Council, associate engineer, ***2012 – 2016***
* Member of Jordanian Engineers Association, Electrical Engineering division, ***since 2007***
* Certified in FIDIC Redbook - International Federation of Consulting Engineers,***2015***
* Member of the Project Management Institute (PMI), ***2013 – 2015***
* KNX Association member and certified KNX Partner (ID 42599), KNX Organization,***May 2013***

# Professional Courses

* LEED 201: Core Concepts & Strategies, ***USGBC, 2013***
* WHMIS 2015, Easergy T300 Overview, ISA99 Cybersecurity, PACiS SAS, Basic Electrical Safety, M238 Industrial PLC, Andover BMS Boot Camp, NETxAutomation, Certified Energy Management Associate & 2N IP Security, ***Schneider-Electric, 2012 – 2017***
* PMP preparation (36 PDUs), ***Saudi HRD Center, PMI-(REP), 2013***
* MCSE training course – Windows 2003 Server, ***Jordanian Engineer Association, 2007***
* A+ Hardware Core, Allen-Bradley PLC,***University of Jordan, 2003, 2005***

# Computer Competencies

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| --- | --- | --- | --- |
| Java | ★★★★☆ | Python | ★★★☆☆ |
| VB/A/S | ★★★★☆ | C/C++ | ★★★☆☆ |
| LISP | ★★★★☆ | HTML | ★★★☆☆ |
| MATLAB | ★★★☆☆ | Linux | ★★★☆☆ |
| MS Office | ★★★★★ | Assembly | ★★★★★ |
| SQL | ★★☆☆☆ | Cyber Sec. | ★★★☆☆ |

# Engineering Skills

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| --- | --- | --- | --- |
| SCADA/DCS | ★★★★★ | AutoCAD | ★★★★★ |
| SCL/IEC61850 | ★★★★☆ | SFC/FBD | ★★★★★ |
| PACiS/EcoSUI | ★★★★★ | PLC/LC | ★★★★★ |
| PowerSCADA | ★★★☆☆ | μC | ★★★★☆ |

# Languages

* Arabic ★★★★★
* English ★★★★★
* French ★★★☆☆

# Personal Characteristics

* Innate leadership skills.
* Can work under pressure.
* Result-oriented and meticulous.
* Professional public speaker.
* Advanced negotiation skills.
* Advanced technical writing skills.

# Voluntary Experience

* Provided a 3-day professional technical training for Southeast Pennsylvania Transportation Authority (SEPTA) on PACiS substation automation system, ***5 to 7-Jul-2017***
* Conducted a technical seminar on Smart Control System in IECEP-KSA-CRC; Institute of Electronics Engineers of the Philippines, Saudi Arabia, ***31-Oct-2014***
* Translated a variety of English engineering and legal content into Arabic and vice versa. ***2010-2012***
* Volunteered to teach basic computer skills for elementary-school children. ***2007***